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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/697,262	10/26/2000	Dirk Daecke	P00,1843	3837
7590	05/06/2004		EXAMINER	
SCHIFF, HARDIN & WAITE Patent Department 6600 Sears Tower- 233 South Wacker Drive Chicago, IL 60606			ELALLAM, AHMED	
			ART UNIT	PAPER NUMBER
			2662	5

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/697,262	DAECKE ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	AHMED ELALLAM	2662	

**– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

1)  Responsive to communication(s) filed on 26 October 2000.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-15 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 1-15 is/are rejected.  
7)  Claim(s) \_\_\_\_\_ is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_.  
\_\_\_\_\_

## DETAILED ACTION

### ***Claim Objections***

1. Claim 15 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 3 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, the phrase "the terminal equipment of the terminal equipment types" lacks antecedent basis.

Claim 3 depends from claim 1, thus it is subject to the same rejection.

In claim 14, the phrase "the symmetric digital subscriber line frame" lacks antecedent basis.

### ***Claim Rejections - 35 USC § 102***

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8, 14 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by Bartholomew et al, US (6,400,708).

Regarding claim 1, with reference to figures 1-3, Bartholomew discloses a circuit arrangement (Fig. 2) comprising:

- channel bank 31 for inserting data belonging to terminal equipment 29 and 25, (claimed transmission unit for inserting data belonging to at least one terminal equipment type in a frame);
- the channel bank comprising a Multiplexer/Demultiplexer 75 for inserting data of the terminal equipment (telephone 29 and computer 25) , and using DS0 slots for transport over a T1 line, see column 12, lines 60-67 and column 13, lines 1-31. (Claimed data of all terminal equipment types being synchronously inserted into frame and transmitted with a digital time-division multiplex technique).

Regarding claim 2, with reference to figures 1-3, Bartholomew discloses a circuit arrangement (Fig. 2) comprising:

- channel bank 31 for dividing a data stream transmitted in a frame by a multiplexer 81 (Fig. 2) to a terminal equipment 29, 25, (claimed a reception unit for dividing a data stream transmitted in a frame by a transmitter to at least one terminal equipment);

- the channel bank comprising a Multiplexer/Demultiplexer 75 (claimed switch module) for demultiplexing the data stream received to its destined terminal equipment (29, 25), wherein the EOC (embedded operations channel) is used for control (claimed control data); see column 11, lines 63-67; column 12, lines 1-19, lines 60-67 and column 13, lines 1-31. (claimed a switch module for a purpose-conforming division of data stream, in which a further division onto further terminal equipment type is undertaken based on control data).

Regarding claim 3, Bartholomew discloses a circuit arrangement (Fig. 2) comprising a transmission reception as indicated in claim 1 and reception unit as indicated in claim 2.

Regarding claims 4 and 15, with reference to figures 1-3, Bartholomew discloses a circuit arrangement (Fig. 2) comprising:

channel bank 31 (claimed first unit) for inserting data belonging to terminal equipment 29 and 25, the channel bank comprising a Multiplexer/Demultiplexer 75 for inserting data of the terminal equipment (telephone 29 and computer 25) , and using DS0 slots for transport over a T1 line to a channel bank 39 (claimed second unit), see column 12, lines 60-67 and column 13, lines 1-31. (Claimed synchronously inserting data of all terminal equipment types into said frame in a first unit, and transmitting data to a second unit with a time-division multiplex method);

wherein the channel bank 39 (second unit) has a Multiplexer/demultiplexer 81 for dividing data stream (T1) to terminal devices of terminal equipment 3, 7 (Figure 1).

(claimed dividing data stream to terminal devices of at least one terminal equipment type in the second unit).

Regarding claim 5 and 6, Bartholomew discloses using ISDN (Integrated Services Digital Network) in which an EOC (embedded operations channel) channel is used. See column 14, lines 16-31, column 15, lines 59-67 and column 16, lines 1-12. (Claimed depositing data for operational control of a connection to which at least one terminal equipment is connected in an operating eoc channel, as in claim 5, and connections are ISDN connections as in claim 6).

Regarding claim 7, Bartholomew discloses with reference to figure 1, that a customer at premises CP-3 can use two DS0 for fractional T1 access for data services, see column 10, lines 9-23.

Regarding claim 8, with reference to figure 1, Bartholomew shows a plurality of terminal equipments 13, 17, 19, 25 connected to the channel bank 31. (Claimed connecting a plurality of terminal equipment of at least one terminal type to a transmission-reception unit).

Regarding claim 14, the channel bank 35 (second unit) of Bartholomew can be regarded as a network termination unit, and the first unit as a network node.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew in view of Tzannes et al, US (6,522,666).

Regarding claims 9 and 10, Bartholomew discloses substantially all the limitations of base claim 4, except it does not explicitly disclose providing bits for operational control in data belonging to a terminal equipment type and arranging bits outside of a payload data region provided for the terminal equipment.

However, Tzannes discloses in the same field of endeavor, providing bits for operational control in data belonging to a terminal equipment type and arranging bits outside of a payload data region provided for the terminal equipment in a frame format. See column 3, lines 14-44.

Therefore, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to implement the EOC overhead method taught by Tzannes in Bartholomew system so that adaptive rates communications can be provided using ISDN digital subscriber lines.

Regarding claim 11, Bartholomew discloses that the EOC channel is used for synchronization, maintenance and testing purposes. See column 9, lines 3-20.

5. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartholomew.

Regarding claim 12. Bartholomew discloses substantially all the limitations of base claim 4, except it does not disclose having a plurality of ISDN connection in a frame, the frame being symmetric digital subscriber line frame.

However, Examiner takes official notice that symmetric digital subscriber line framing is a standard well known in the art. Since official notice is taken, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to implement the method of Bartholomew of ISDN connections using the well known SDSL (Symmetric Digital Subscriber Line) framing technology so that high rate ISDN DSL (Integrated Services Digital Network Digital Subscriber Line) (IDSL) can be implemented over a single copper line.

Regarding claim 13. Bartholomew discloses substantially all the limitations of base claim 4, except it does not disclose a symmetric digital subscriber line frame for carrying a plurality of traditional telephony connections.

However, Examiner takes official notice that symmetric digital subscriber line frame is well known in the art. Since official notice is taken, it would have been obvious to an ordinary person of skill in the art, at the time the invention was made to implement the traditional voice telephony of Bartholomew using the known SDSL frames so that advantage can be taken of the high bit rates that the SDSL technology provides.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Schneider, US (6,215,855); Landry, US (6,282,238); Jennes, US (6,324,212); Gersberg et al, US (6,452,923); Williams, US (6,590,904).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (703) 308-6069. The examiner can normally be reached on 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kizou Hassan can be reached on (703) 305-4744. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHMED ELALLAM  
Examiner  
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4/30/2004



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